

WHAT IS CLAIMED IS:

1. A colorless glass composition having a base glass composition, comprising, in weight percentage, from about 0.01 to 0.03 wt% of Fe₂O₃; from about 20-30% reduction (Fe²⁺) and from about 0.05 to 1 wt% of TiO₂, the glass having a visible light transmission of at least 87%, a ultraviolet radiation transmittance no more than 81%; a solar direct transmittance no more than 90%; a dominant wavelength from 600 to 490 nm; and a purity of less than 2%.
2. The colorless glass composition as defined in claim 1, wherein said glass has a color tint as defined in the CIE Hunter Lab Illuminant C, in the ranges ah (green-red) from 0 to -1.5; bh (blue-yellow) from -0.5 to 1.0, and having an Lh value greater than 93.
3. The colorless glass composition as defined in claim 1, wherein said glass is produced with a thickness from about 3.2 millimeters.
4. The colorless glass composition as defined in claim 1, wherein the % visible light transmission is increased from about 89.5% to about 91.7%, with an increase of 0.6% TiO₂.
5. The colorless glass composition as defined in claim 1, wherein the visible light transmission is greater than 89%.
6. A colorless glass composition having a base glass composition, comprising, in weight percentage: from 70 to 75% of SiO₂; from 10 to 15% of Na₂O; from 5 to 10% of CaO; from 0 to 5% of MgO; from 0.0 to 3 % K₂O; from 0.1 to 1.0 %

Al_2O_3 % and compounds consisting of from about 0.01 to 0.03% of Fe_2O_3 ; from about 20 to 30% reduction (Fe^{2+}) and from about 0.05 to 1% of TiO_2 , the glass having a visible light transmission of at least 89%; an ultraviolet radiation transmittance of no more than 81%; solar direct transmittance of no more than 90%; a dominant wavelength from 5 600 nm to 490 nm; and a purity of less than 2%.

7. The colorless glass composition as defined in claim 6, wherein said glass has a color tint as defined in the CIE Hunter Lab illuminant C, in the ranges ah (green-red) from 0 to -1.5; bh (blue-yellow) from -0.5 to 1.0, and having an Lh value greater than 93.

10 8. The colorless glass composition as defined in claim 6, wherein said glass is produced with a thickness from about 3.2 millimeters.

9. The colorless glass composition as defined in claim 6, wherein the visible light transmission is increased from about 89.5% to about 91.7%, with an increase of 0.6% TiO_2 .

15 10. The colorless glass composition as defined in claim 6, wherein the visible light transmission is greater than 89%.